**3.2 Rolle’s Theorem, MVT, and average/instantaneous rates of change**

**Day 2**

**Compose a report of at least one half page explaining the scenario below. Be creative, remember Mr. B doesn’t like to read one boring paper after another. Leniency sometimes is given for extra creative papers.**

2 Pikepass gates are 60 miles apart and the time stamps are given below. Speed is also given for each time.

8:00 am- Pass through gate 1 @ 55 mph

8:40 am- Pass through gate 2 @ 57 mph

Explain why you should be ticketed for breaking the 75 mph speed limit even though the only 2 speeds recorded are 55 mph and 57 mph. Why should the computer ticket you? You might find these hints helpful. **Do Not Simply Answer the Questions below (flesh out the answers to them in a paragraph)**

1. Include why there must be a time when you were speeding. For example, why does the average speed of \*\*\*\* mph mean there was a time you were going 85 mph?
2. If you arrived at the 2nd gate at 9:00 am, does that guarantee that you weren’t speeding at one point?
3. What is the maximum amount you could be ticketed for using this information?